Animal Units

Identification_Information:
 Citation:
  Citation_Information:
   Originator: your name
   Publication_Date: 1999
   Title: 1997 Animal Units
   Publication_Information:
    Publication_Place: Annapolis, MD
    Publisher: Maryland Department of Natural Resources
 Description:
  Abstract:
   Animal units representing 1000 pounds of a
   particular animal type were derived from animal
   numbers reported in the 1997 USDA-NASS Census of
   Agriculture. Animals represented include: beef
   cows, dairy cows, swine, poultry layers less than
   3 pounds, poultry layers greater than 3 pounds,
   and turkeys. Animal units are used estimate the
   amount of manure voided in a particular area. The
   county based-numbers were distributed to
   Chesapeake Bay Program Phase 4.2 Watershed Model
   county-segments using the ratio of herbaceous
   acres in each of the county-segment to total
   county herbaceous acres.
  Purpose:
   Manure provides nutrients that may be utilized by
   crops. The manure is also a source of nutrient
   runoff to nearby streams and infiltration to
   ground water. Manure may either be voided in
   confined areas or unconfined areas. Manure voided
   in unconfined areas is assumed to occur in
   pastureland in the Chesapeake Bay Program's Phase
   4.2 Watershed Model. Manure voided in confined
   areas may be stored for future application on land
   when crops can utilize the nutrients, and when the
   soil and weather conditions are appropriate.
   During the process of collecting and storing the
   manure, nutrients may be lost from the facility in
   the form of runoff. Assumptions are made in the
   model for each type of animal to determine how
   much manure is voided in confined areas and how
   much is susceptible to runoff from the facility.
   Best management practices (BMP's) are employed on
   a portion of the confined manure to reduce runoff

from the facility.
Time_Period_of_Content:
  Time_Period_Information:
    Single_Date/Time:
      Calendar_Date: 1997
Status:
  Progress: Complete
  Maintenance_and_Update_Frequency: None planned
Spatial_Domain:
  Bounding_Coordinates:
    West_Bounding_Coordinate: -79.4938
    East_Bounding_Coordinate: -75.045
    North_Bounding_Coordinate: 39.7425
    South_Bounding_Coordinate: 37.8713
Keywords:
  Theme:
    Theme_Keyword_Thesaurus: None
    Theme_Keyword: animal
    Theme_Keyword: manure
    Theme_Keyword: Agriculture Census
  Place:
    Place_Keyword_Thesaurus: None
    Place_Keyword: Maryland
Access_Constraints: none
Use_Constraints:
  This watershed-oriented database represents the
  results of data collection and processing for
  specific Maryland Department of Natural Resources
  (DNR) planning activities and indicates
  generalized existing conditions for a certain time
  period as referenced in the metadata database
  form. As such, it is only valid for this intended
  use and time. The user is responsible for the
  results of any application of the data for other
  than their intended purpose. The information
  contained in this database is from publicly
  available sources, but no representation is made
  as to the accuracy or completeness of the data.
  Acknowledgement of the Maryland DNR/CCWS is
  requested for products derived from the data.
Point_of_Contact:
  Contact_Information:
    Contact_Person_Primary:
      Contact_Person: Ken Miller
    Contact_Position: Section Chief

```
      Contact_Address:
        Address_Type: mailing address
        Address: Tawes State Office Building, D-2
        Address: 580 Taylor Avenue
        City: Annapolis
        State_or_Province: MD
        Postal_Code: 21401
      Contact_Voice_Telephone: 410-260-8784
      Contact_Facsimile_Telephone: 410-555-1234
      Contact_Electronic_Mail_Address: kenmiller@dnr.state.md.us
      Hours_of_Service: 8:30 - 4:30 Monday to Friday
Data_Quality_Information:
  Lineage:
    Source_Information:
      Source_Citation:
      Type_of_Source_Media: electronic mail system
      Source_Time_Period_of_Content:
        Time_Period_Information:
          Single_Date/Time:
            Calendar_Date: 1997
        Source_Currentness_Reference: the publication date
      Source_Citation_Abbreviation: au1997
      Source_Contribution:
        provides animal units by county segment, derived
        from county populations provided in the 1997
        Agriculture Census
    Source_Information:
      Source_Citation:
        Citation_Information:
          Originator: EPA - CBPO
          Publication_Date: 1999
          Title: Phase 4.2 County Segments
      Type_of_Source_Media: disc
      Source_Time_Period_of_Content:
        Time_Period_Information:
          Single_Date/Time:
            Calendar_Date: 1999
        Source_Currentness_Reference: the publication date
      Source_Citation_Abbreviation: cosegs
      Source_Contribution: shape file of CBP Watershed Model county segments
    Process_Step:
      Process_Description: 1997 Animal units were mapped by county sement.
      Source_Used_Citation_Abbreviation: au1997
      Source_Used_Citation_Abbreviation: cosegs
      Process_Date: 1999
```

Process_Contact:
          Contact_Information:
            Contact_Person_Primary:
              Contact_Person: Kevin J. Coyne
              Contact_Organization: Maryland Department of Natural Resources
            Contact_Position: Water Resources Engineer
            Contact_Address:
              Address_Type: mailing address
              Address: Tawes State Office Building, E-2
              City: Annapolis
              State_or_Province: MD
              Postal_Code: 21401
              Country: USA
            Contact_Voice_Telephone: 410-260-8985
            Contact_Facsimile_Telephone: 410-260-8779
            Contact_Electronic_Mail_Address: kjcoyne@dnr.state.md.us
            Hours_of_Service: 8:30 - 4:30
Spatial_Data_Organization_Information:
Spatial_Reference_Information:
Entity_and_Attribute_Information:
  Detailed_Description:
    Entity_Type:
      Entity_Type_Label: Animal units
      Entity_Type_Definition: number of animal units
      Entity_Type_Definition_Source: EPA-CBPO
    Attribute:
      Attribute_Label: Coseg_ts
      Attribute_Definition:
        county-segment, tributary strategy identification
        code
      Attribute_Definition_Source: Maryland Dept of Natural Resources
      Attribute_Domain_Values:
        Unrepresentable_Domain:
          combination of county-segment identification and
          tributary strategy basin code
    Attribute:
      Attribute_Label: Segment
      Attribute_Definition: Phase 4.2 Watershed Model Segment
      Attribute_Definition_Source: EPA-CBPO
      Attribute_Domain_Values:
        Codeset_Domain:
          Codeset_Name: Phase 4.2 Watershed Model Segments
          Codeset_Source: EPA-CBPO
    Attribute:
      Attribute_Label: Fips

Attribute_Definition:
  county Federal Information Processing Standard
  (FIPS) code
Attribute_Definition_Source:
  Maintenance Agency - U.S. Department of Commerce,
  Bureau of the Census, Geography Division
Attribute_Domain_Values:
  Codeset_Domain:
    Codeset_Name: FIPS 6-4
    Codeset_Source:
      Maintenance Agency - U.S. Department of Commerce,
      Bureau of the Census, Geography Division
Attribute:
  Attribute_Label: area
  Attribute_Definition: Area of polygon
  Attribute_Definition_Source: Software computed
  Attribute_Domain_Values:
    Range_Domain:
      Range_Domain_Minimum: 922858.176
      Range_Domain_Maximum: 65167980230.091
  Attribute_Units_of_Measure: square feet
Attribute:
  Attribute_Label: Perimeter
  Attribute_Definition: Perimeter of polygon
  Attribute_Definition_Source: Software computed
  Attribute_Domain_Values:
    Range_Domain:
      Range_Domain_Minimum: 5416.349
      Range_Domain_Maximum: 31313515.546
  Attribute_Units_of_Measure: feet
Attribute:
  Attribute_Label: Acres
  Attribute_Definition: area of county-segment in acres
  Attribute_Definition_Source: EPA-CBPO
  Attribute_Domain_Values:
    Range_Domain:
      Range_Domain_Minimum: 21.186
      Range_Domain_Maximum: 1496050.969
  Attribute_Units_of_Measure: acres
Attribute:
  Attribute_Label: Stra_code
  Attribute_Definition: Code for Tributary stratergy basin
  Attribute_Definition_Source: Maryland Dept of Natural Resources
  Attribute_Domain_Values:
    Codeset_Domain:

Codeset_Name: Strategy Codes
Codeset_Source: Maryland Dept of Natural Resources
Attribute:
  Attribute_Label: Coseg
  Attribute_Definition: Phase 4.2 Watershed Model County-Segment
  Attribute_Definition_Source: EPA-CBPO
  Attribute_Domain_Values:
    Codeset_Domain:
      Codeset_Name: County-Segment
      Codeset_Source: EPA-CBPO
Attribute:
  Attribute_Label: County
  Attribute_Definition: Maryland County Name
  Attribute_Definition_Source: State of Maryland
  Attribute_Domain_Values:
    Unrepresentable_Domain: Character field
Attribute:
  Attribute_Label: Straname
  Attribute_Definition: name of tributary strategy basin
  Attribute_Definition_Source: Maryland Department of Natural Resources
  Attribute_Domain_Values:
    Unrepresentable_Domain: Character field
Attribute:
  Attribute_Label: Au_beef
  Attribute_Definition: 1997 beef cow animal units
  Attribute_Definition_Source: EPA-CBPO
  Attribute_Domain_Values:
    Range_Domain:
      Range_Domain_Minimum: 0.0000
      Range_Domain_Maximum: 27911.0586
  Attribute_Units_of_Measure: animal units
Attribute:
  Attribute_Label: Au_swine
  Attribute_Definition: 1997 swine animal units
  Attribute_Definition_Source: EPA-CBPO
  Attribute_Domain_Values:
    Range_Domain:
      Range_Domain_Minimum: 0.0000
      Range_Domain_Maximum: 1604.7770
  Attribute_Units_of_Measure: animal units
Attribute:
  Attribute_Label: Au_layl3
  Attribute_Definition:
    1997 poultry layers less than 3 pounds animal
    units

Attribute_Definition_Source: EPA-CBPO
Attribute_Domain_Values:
 Range_Domain:
  Range_Domain_Minimum: 0.0000
  Range_Domain_Maximum: 2858.0813
Attribute_Units_of_Measure: animal units
Attribute:
 Attribute_Label: Au_layg3
 Attribute_Definition:
  1997 poultry layers greater than 3 pounds animal
  units
 Attribute_Definition_Source: EPA-CBPO
 Attribute_Domain_Values:
  Range_Domain:
   Range_Domain_Minimum: 0.0000
   Range_Domain_Maximum: 462.8696
 Attribute_Units_of_Measure: animal units
Attribute:
 Attribute_Label: Au_broil
 Attribute_Definition: 1997 poultry broilers animal units
 Attribute_Definition_Source: EPA-CBPO
 Attribute_Domain_Values:
  Range_Domain:
   Range_Domain_Minimum: 0.0000
   Range_Domain_Maximum: 12565.3679
 Attribute_Units_of_Measure: animal units
Attribute:
 Attribute_Label: Au_turk
 Attribute_Definition: 1997 turkeys animal units
 Attribute_Definition_Source: EPA-CBPO
 Attribute_Domain_Values:
  Range_Domain:
   Range_Domain_Minimum: 0.0000
   Range_Domain_Maximum: 1784.4303
 Attribute_Units_of_Measure: animal units
Attribute:
 Attribute_Label: Au_total
 Attribute_Definition: 1997 total animal units
 Attribute_Definition_Source: EPA-CBPO
 Attribute_Domain_Values:
  Range_Domain:
   Range_Domain_Minimum: 0.0000
   Range_Domain_Maximum: 57191.9485
 Attribute_Units_of_Measure: animal units
Attribute:

Attribute_Label: Au_poultry
Attribute_Definition: 1997 combined poultry (4 types) animal units
Attribute_Definition_Source: EPA-CBPO
Attribute_Domain_Values:
  Range_Domain:
    Range_Domain_Minimum: 0.0000
    Range_Domain_Maximum: 12693.0374
Attribute_Units_of_Measure: animal units
Attribute:
  Attribute_Label: Au_other
  Attribute_Definition:
    1997 non-poultry (beef cows, dairy cows, swine)
    animal units
  Attribute_Definition_Source: EPA-CBPO
  Attribute_Domain_Values:
    Range_Domain:
      Range_Domain_Minimum: 0.0000
      Range_Domain_Maximum: 54747.7577
  Attribute_Units_of_Measure: animal units
Distribution_Information:
  Distributor:
    Contact_Information:
      Contact_Person_Primary:
        Contact_Person: Ken Miller
      Contact_Position: Section Chief
      Contact_Address:
        Address_Type: mailing address
        Address: Tawes State Office Building, D-2
        Address: 580 Taylor Avenue
        City: Annapolis
        State_or_Province: MD
        Postal_Code: 21401
      Contact_Voice_Telephone: 410-260-8784
      Contact_Facsimile_Telephone: 410-555-1234
      Contact_Electronic_Mail_Address: kenmiller@dnr.state.md.us
      Hours_of_Service: 8:30 - 4:30 Monday to Friday
  Distribution_Liability:
    Although these data have been processed
    successfully on a computer system at the MD
    Department of Natural Resources (DNR), no warranty
    expressed or implied is made by the MD DNR
    regarding the utility of the data on any other
    system, nor shall the act of distribution
    constitute such warranty. The MD DNR will warrant
    the delivery of this product in computer-readable

format, and will offer replacement when the
product is determined unreadable by correctly
adjusted computer input peripherals, or when the
physical medium is delivered in damaged condition.
  Standard_Order_Process:
   Digital_Form:
    Digital_Transfer_Information:
     Format_Name: DBF
    Digital_Transfer_Option:
     Offline_Option:
      Offline_Media: 3-1/2 Inch Floppy Disk
      Recording_Format: ISO 9660
   Fees: cost of reproduction
Metadata_Reference_Information:
 Metadata_Date: 19981207
 Metadata_Contact:
  Contact_Information:
   Contact_Person_Primary:
    Contact_Person: Ken Miller
   Contact_Position: Section Chief
   Contact_Address:
    Address_Type: mailing address
    Address: Tawes State Office Building, D-2
    Address: 580 Taylor Avenue
    City: Annapolis
    State_or_Province: MD
    Postal_Code: 21401
   Contact_Voice_Telephone: 410-260-8784
   Contact_Facsimile_Telephone: 410-555-1234
   Contact_Electronic_Mail_Address: kenmiller@dnr.state.md.us
   Hours_of_Service: 8:30 - 4:30 Monday to Friday
 Metadata_Standard_Name: FGDC Content Standard For Digital Geospatial Metadata
 Metadata_Standard_Version: June 8, 1994 (Version 1.0)
 Metadata_Access_Constraints: None
 Metadata_Use_Constraints: None